Site Standards and Details

Description:
The purpose of the section is to highlight the current applicable UMD Design Standards for the design of common site features utilized on the campus.

Related Sections:
- TBD

Effective Date:
January 1, 2023

Applicable Standards:
- Maryland Department of Transportation
- ADA Standards for Accessible Design

General Requirements:
Campus wide site standards (and associated details) have been established for the following items:

- Concrete Steps:
  - w/o Cheek wall
  - w/Cheek wall
- Curb Types: Any roll-up versions are prohibited for use on campus
  - Bituminous Concrete Curb
  - 6" and 8" Concrete Curb and Gutter
  - 8" Mountable Curb
  - 4" Concrete Landscape Curb
- Handrail Types:
  - TBD
- Paving Types:
  - Concrete Pavers
  - Concrete Walks
  - Bituminous Asphalt Paving
  - Brick on Concrete
- Planting Details:
  - Trees: TBD
  - Shrubs: TBD
- Ramps for Persons with Disabilities (PWD):
  - PWD Ramp, Plan View
  - PWD Ramp, Section
- Security Gates:
  - PWD Ramp, Section
- Ramps for Persons with Disabilities (PWD):
  - PWD Ramp, Plan View
  - PWD Ramp, Section
- Dumpster Pad:
  - PWD Ramp, Plan View
  - PWD Ramp, Section
Specific Requirements:

Concrete Steps w/o Cheek wall
- Use Criteria: provide its expected/typical location and/or use
- Manufacturer: N.A.
- Model: N.A.
- Description/Material: Cast-in-place (as specified)
- Finish: Non smooth slip resistant
- Performance: Meets ADA requirements Railing criteria
- Related Details: TBD

Concrete Steps w/ Cheek wall
- Use Criteria: provide its expected/typical location and/or use
- Manufacturer: N.A.
- Model: N.A.
- Description/Material: Cast-in-place (as specified)
- Finish: Non smooth slip resistant
- Performance: Meets ADA requirements Railing criteria
- Related Details: TBD

Curbs
- Concrete Curb
- 6" and 8" Concrete Curb and Gutter
- 8" Mountable Curb
- 4" Concrete Landscape Curb
  - Use Criteria: provide at expected/typical location
  - Manufacturer: N.A.
  - Model: N.A.
  - Description/Material: Cast-in-place (as specified)
  - Finish: Smooth
  - Performance: Meets ADA requirements
  - Related Details: TBD

Handrail (Decorative)
- Material: Moulded steel with flat black paint finish.
- Manufacturer: Acme Iron Works, Inc. Tuxedo, Md.
- Model: Style #104 or similar style
- Description: Moulded steel with red enamel primer and black flat paint finish. Moulded top bar, 1/2" square pickets spaced 4" O.C. and a lamb's tongue.
- Performance: Placed on steps of more than three treads and as required by ADA Standards.

Handrail (Regular)
- Material: Fabricated with flat black paint finish.
- Manufacturer: Acme Iron Works, Inc. Tuxedo, Md.
- Model: TBD
- Description: Moulded steel with red enamel primer and black flat paint finish. Moulded top bar, 1/2" square pickets spaced 4" O.C.
- Finish: Painted
- Performance: Placed on steps of more than three treads and as required by ADA Standards.
- Related Details: TBD
Site Standards and Details

Paving Types

- M.1. Interlocking Concrete Pavers
- M.2. Concrete Sidewalk/Walkways
- M.3. Bituminous Asphalt Paving
- M.4. Brick on Concrete
2.13 SITE STANDARDS

FULL DEPTH 1/2" EXPANSION JOINT (TYP)
1/2" BATTER (TYP)
1" RADIUS (TYP)
1/8" PER FOOT (TYP)

TOP OF CHEEKWALL

1'-0"  1'-2"

2'-0"

#4 REBAR
12" OC BOTH WAYS

COMPACTED BACKFILL OR UNDISTURBED SOIL

NOTE
SEE HANDRAIL DETAIL

CONCRETE STEPS

NTS
2.13 SITE STANDARDS

NOTE:
PROPOSED SURFACE SHOULD EXTEND
6' BEYOND BACK OF CURB BUT
NOT MORE THAN 12'

2' R.

+ 10'

47'

7 1/2'

9'

TOP OF EXISTING OR PROPOSED BASE

BITUMINOUS CONCRETE CURB

NTS
2.13 SITE STANDARDS

1'-4'  8'

1/8' / 1 FT

ASPHALT PAVING

3500 PSI CONCRETE
4" COMPACTED MSHA GA BASE
COMPACTED BACKFILL/UNDISTURBED SOIL

6" & 8" CONCRETE CURB AND GUTTER

NTS
2.13 SITE STANDARDS

COMPACTED MSHA GA BASE
3500 PSI CONCRETE
COMPACTED BACKFILL/UNDISTURBED SOIL

8" MOUNTABLE CURB
NTS
2.13 SITE STANDARDS

NOTE:
1. PROVIDE HORIZONTAL RAILINGS AT LANDING
2. SLOPE ANCHOR CEMENT AWAY FROM POST AND CONTAIN CLEANLY WITHIN 2" HOLE
3. ALLOW 1" CLEARANCE BETWEEN LAMBS TONGUE AND END POST
4. ALTERNATIVE RAILINGS WILL BE CONSIDERED.

SECTION A-A

HANDRAIL
INTERLOCKING CONCRETE PAVERS

NOTE: CONCRETE PAVER TO BE COMPACTED WITH VIBRATORY TAMPER
CONCRETE WALK

NOTE: MINIMUM DISTANCE BETWEEN CONTROL JOINTS SHALL BE EQUAL TO WIDTH OF SIDEWALK OR AS SHOWN ON THE SITE PLAN

COMPACTED MSHA GA BASE

COMPACTED BACKFILL UNDISTURBED SOIL

3500 PSI CONCRETE (STANDARD BROOM FINISH)

1/2" FULL DEPTH EXPANSION JOINT

TOOLED CONTROL JOINT (1/4" WIDE X 1" DEEP)

6"X6" W1XW2.1 WVF (STOP AT EXPANSION JOINTS)
BITUMINOUS ASPHALT PAVING

NOTE: PROVIDE THIS SECTION ONLY IF ENGINEERED DESIGN IS NOT FEASIBLE, AND ONLY WITH APPROVAL FROM FACILITIES MANAGEMENT.
SECTION

BRICK ON CONCRETE

NOTE: FOR USE IN NON-VEHICULAR AREAS. SEE CONCRETE PAVER DETAIL FOR TYPICAL VEHICULAR PAVER APPLICATION.
NOTE:
1. DO NOT INSTALL MULCH WITHIN 6' OF TREE TRUNK
2. INSTALL TOP OF ROOT BALL AT FINISHED GRADE

DO NOT CUT LEADER

RUBBER HOSE
TWISTED GUY WIRE
2" x 2" x 8' HARDWOOD STAKE DRIVEN FIRMLY INTO SOIL

CUT BURLAP AND ROPE AWAY FROM 1/2 OF BALL
2' SHREDDED HARDWOOD MULCH
FINISHED GRADE
APPROVED BACKFILL AND PLANTING MIX AS SPECIFIED
UNDISTURBED SUBSOIL

TREE PLANTING DETAIL
CUT BURLAP AND ROPE AWAY FROM 1/2 OF BALL

3" SHREDDED HARDWOOD MULCH

6" SAUCER

FINISHED GRADE

APPROVED BACKFILL AND PLANTING MIX AS SPECIFIED

COMPACTED BACKFILL

3X DIA. ROOT BALL

NOTE:
PLANT TOP OF ROOT BALL 2' ABOVE GRADE

CUT CONTAINER GROWN ROOTBALL AS SHOWN PRIOR TO PLANTING

SHRUB PLANTING DETAIL

NTS
2.13 SITE STANDARDS

NOTE
1. SEE SECTION A-A
2. REFER TO ADA STANDARDS FOR SPECIFIC ADJUNCT SITE REQUIREMENTS

PLAN VIEW

CURB RAMP

NTS
2.13 SITE STANDARDS

1/2' EXPANSION JOINT

6'X6' W21 X W21 WWF

STIFF BROOM FINISH (SEE PLAN VIEW)

COMPACTED BACKFILL OR UNDISTURBED SOIL

4' COMPACTED MSHA GA BASE

NOTE
3500 PSI CONCRETE (STIFF BROOM FINISH)

SECTION 'A-A'

PWD RAMP

NTS
2.13 SITE STANDARDS

GATE HINGE DETAIL SHOWN ABOVE.

SCHEDULE 40-2" STEEL PIPE

(FILL PIPE WITH CONCRETE AND ROUND TOP)

3500 PSI CONCRETE
SCHEDULE 80-5" STEEL PIPE

NOTE
1. WELDED JOINTS TO BE CONTINUOUS WELD.
2. APPLY ONE COAT PRIMER AND TWO COATS ENAMEL PAINT, COLOR PER OWNER
3. ATTACH SIGN TO GATE USING GALVANIZED BOLTS.

1/2"X 3-1/2" MACHINE BOLT
1/8" WASHER
1/2" STEEL PLATE WELDED TO POST

HINGE DETAIL
NTS

SECURITY GATE
NTS
2.13 SITE STANDARDS

PAVER

GRATE

7/16"X2"X4"-8" STEEL BAR TO SUPPORT TREE GRATE

4' COMPACTED BANK RUN GRANULAR UNDER CONCRETE RIM

SECTION 'A-A'

PLAN VIEW

BRICK PAVERS (CALVERT I15, BASKETWEAVE PATTERN)
TREE GRATE (6'X6' SQ.)
PRE-CAST CONC. RIM (3500 PSI MIN)
(2) #4 STEEL REBAR
TREE CENTERED IN GRATE
7/16"X2"X2" SLOT (TYP) IN CURB
7/16"X2"X4"-8" STEEL BAR TO SUPPORT TREE GRATE
1'-7" (TYP)

TREE GRATE
NTS
2.13 SITE STANDARDS

TOP OF BALL 3' BELOW GRATE
FILL W/PEA GRAVEL TO TOP OF GRATE
3' DEPTH
TREE GRATE (SEE SPECS)
W/FRAME

6" 40 SCHEDULE, PVC
PERFORATED PIPE
WITHIN 12" X 12"
TRENCH FILLED WITH
PEA GRAVEL. WRAP
TRENCH WITH FILTER
CLOTH.

TREE GRATE

NTS